

IN THE CLAIMS:

Please cancel claims 32 and 33 without prejudice.

Please amend the claims to read as follows:

29. (amended) An isolated oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule encoding on expression a soluble leptin receptor polypeptide selected from the group consisting of:

- a. a DNA molecule of SEQ ID NO: 9;
- b. a DNA molecule complementary to the DNA molecule defined in (a);
- c. a DNA molecule which is amplifiable with a polymerase chain reaction (PCR)

probe selected from group consisting of a probe for clone 7 (forward primer SEQ ID NO:42 and reverse primer SEQ ID NO:43), a probe for clone 11 (forward primer SEQ ID NO:44 and reverse primer SEQ ID NO:45), and both clone 7 and clone 11; and

d. a DNA molecule that codes on expression for the soluble leptin receptor polypeptide encoded by any of the foregoing DNA molecules.

30. (amended) An isolated oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule which codes on expression for a soluble leptin receptor polypeptide selected from the group consisting of:

- a. a soluble leptin receptor selected from the group consisting of OB-Re (SEQ ID NO:10), or allelic variants thereof; and
- b. a leptin receptor comprising amino acids 28-805 of SEQ ID NO:10.

31. (amended) An isolated oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule having a nucleotide sequence corresponding or complementary to the DNA sequence set forth in SEQ ID NO: 9.

67. (withdrawn and amended) A method for diagnosing body weight abnormalities in a mammal comprising detecting splice variants of soluble leptin receptor OB-R in a patient sample comprising contacting a sample suspected of containing splice variants of soluble leptin receptor OB-R with an oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule which codes on expression for a soluble leptin receptor polypeptide selected from the group consisting of:

- a. a leptin receptor selected from the group consisting of OB-Re (SEQ ID NO:10), or allelic variants thereof; and

b. a leptin receptor comprising amino acids 28-805 of SEQ ID NO:10.

68. (withdrawn and amended) A method for diagnosing body weight abnormalities in a mammal comprising detecting splice variants of soluble leptin receptor OB-R in a patient sample comprising contacting a sample suspected of containing splice variants of soluble leptin receptor OB-R with an oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule which codes on expression for a polypeptide selected from the group consisting of SEQ ID NO: 10, or allelic variants thereof.

69. (withdrawn and amended) A method for measuring the expression of splice variants of soluble leptin receptor OB-R in a patient sample comprising contacting a sample suspected of containing splice variants of soluble leptin receptor OB-R with a oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule which codes on expression for a polypeptide selected from the group consisting of:

- a. a leptin receptor selected from the group consisting of OB-Re (SEQ ID NO:10), or allelic variants thereof; and
- b. a leptin receptor comprising amino acids 28-805 of SEQ ID NO:10.

70. (withdrawn and amended) A method for measuring the expression of splice variants of soluble leptin receptor OB-R in a patient sample comprising contacting a sample suspected of containing splice variants of soluble leptin receptor OB-R with a oligonucleotide hybridizable under stringent conditions, corresponding to 40% formamide with 5x or 6x SSC, to the nucleic acid molecule which codes on expression for a polypeptide selected from the group consisting of SEQ ID NO: 10, or allelic variants thereof.

73. (withdrawn and amended) The method of any of claims 67-70 wherein the oligonucleotide is selected from the group consisting of SEQ ID NO: 20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54.